MOUNTAIN AGRICULTURE

Conducted by Mr. Robert F. Spence, Farm Demonstrator and Special Investigator

NOTICE

State Poultry Agent Mr. Chapan and Madison County Lady Agent, Miss Oglesby, will meet with us at Clover Bottom next Saturday at our regular Farmers' Club Meeting, to be held at 1:00 p. m. A big meeting will be held at McKee at 7:00 p. m. by these parties together with County Agent Reynolds and Miss Spence. Everybody is invited to attend these meetings.

There has been many questions asked me in the last few weeks in regard to soy beans and cowpeas. The following article will explain:

THE SOY BEAN

Soy beans make a hay for excellent feeding quality, superior to red clover and cowpea hay

For a brief period, soy beans may be used for pasture, especially desirable for hogs.

Soy beans are well adapted for soiling and silage purposes. Feeding trials indicate that soy bean grain in a large measure may take the place of concentrated feeds for all classes of live stock.

The soy beans on the Berea State Experiment Field produced 3075 pounds of hay per acre. The half that was broadcast produced 1584 pounds, while the half that was planted in rows and cultivated produced 1491 pounds. The cultivated part produced the biggest and rankest growth but the stock ate the broadcast better—the stalks were not so large and the stock could eat all for hay. While on the other hand the cultivated half left the ground in much better shape for a winter corp. Try them both ways. Call on Mr. George Pigg and he'll be glad to tell you the value of soy beans.

Soy beans may be grown for seed, which commands a good price. The growing of soy beans improves the soil by increasing its store of nitrogen and by correcting its physical conditions.

Throughout the Atlantic states the crimson clover crop may be followed the same season by soy beans thus producing two forage crops from the same land in one year. On account of rapid growth soy beans are admirably adapted for a green manure crop after wheat, early potatoes, or other early maturing crops.

SOY BEANS COMPARED WITH COWPEAS

Soy beans are very similar to cowpeas with respect to season of growth and cultural requirements. Since the two crops occupy the same place in crop rotation, it is well to contrast their adaptability for similar conditions

Soy beans mature uniformly, the pods ripening practically at the same time; cowpeas often bear ripe pods and blossoms on the same plant, irregularities of season will frequently cause an after growth of the plant. A condition which does not exist with soy beans. This difference in maturing habit is distinctly in favor of soy beans, in as much as the latter may be more easily harvested for seed or hay than cowpeas.

Most varieties of soy beans grow erect or nearly so; cowpeas are viney, and bear pods so near the ground that it is difficult to save seed by machinery.

Frost is less likely to injure soy beans than cowpeas, which are killed by light frosts.

Soy beans are injured less by insect enemies and plant diseases than cowpeas.

For seed productions on clay soil the soy bean is much more desirable than the cowpea. Experiments at the Delaware Station shows that soy beans will produce, on the average, 10 bushels more seed per acre than cowpeas.

There is little difference in the value of soy beans and cowpeas for growing under for green manure.

There is less loss of leaves in handling soy beans for hay than cowpeas if they are cut at the right time. The loss of leaves on the Berea Experiment Field was not considered because the beans were cut about 10 days after blooming.

Cowpeas are better adapted for growing in corn intended for silage or for hogging.

Soy beans crack less in threshing than cowpeas. They are also richer in protein and oil than cowpeas.

Soy bean stubble and roots leave more organic matter in the soil than cowpeas.

On the Berea State Experiment Field, we found on the roots of one stalk, 23 nitrogen nodules from the size of a wheat grain to the size of a cherry

I would advise all farmers to try both these crops and see just which one proves better for him and his purposes on his farm.

NOTES.

I am anxious for the time to hasten when more of our farmers in the mountains will cease to grow corn alone—and grow more legumes and grasses; build more silos and feed better stock. The way to do this is to begin now.

The biggest question now before the farmer is **Cooperation**. How can we ever be strong if we fail to Cooperate? United we stand, divided we fall. We need strength—yet we are the strongest people on earth. Without us the nation would perish. Since we are the chief corner stones of this nation let's unite our hands and hearts and be one **great** source of power, influence and helpfulness to each other and the rest of the laboring people.

CINCINNATI MARKETS

Corn—No. 2 white 76½@77c, No. 3 white 76@76½c, No. 4 white 73½@74½c, No. 2 yellow 76½@77c, No. 3 yellow 76@76½c, No. 4 yellow 73½@74½c, No. 2 mixed 76@½76½c, No. 3 mixed 75½@76c, No. 4 mixed 73½@74½c, white ear 79@81c, yellow ear 81@83c, mixed ear 79@81c.

Hay—No. 1 timothy $22.50@23c, No. 2 $20.50@21, No. 3 $17.50@19, No. 1 clover mixed $19.50@20.50, No. 2 $17.50@18.50, No. 1 clover $15, No. 2 $13.

Oats—No. 2 white Northwestern 52@54c, standard white Northwestern 51@52c, No. 3 white Northwestern 50@51c, No. 3 white local 45@45½c, No. 4 white 44@44½c, No. 2 mixed 43½@44½c, No. 3 mixed 42½@43½c, No. 4 mixed 41½@42½c.

Wheat—No. 2 red $1.22@1.24, No. 3 $1.16@1.20, No. 4 $1.02@1.10.

Eggs—Prime firsts 20½c, firsts 20c, ordinary firsts 19c, seconds 17½c.

Poultry—Broilers, 1¼ to 1½ lbs, 35@38c; over 1½ lbs, 30@35c; fowls, 4 lbs and over, 18c; under 4 lbs, 18c; roosters, old, 11c; ducks, white, 3 lbs lbs and over, 14, under 3 lbs, 12c; colored, 11c; hen turkeys, 8 lbs and over, 20c; young tom turkeys, 10 lbs and over, 20c; crooked breasted, 10@12c; culls 6@8c.

Cattle—Shippers $8@9.25; butcher steers, extra $8.75@9, good to choice $8@8.75, common to fair $6@7.75; heifers, extra $8.75@9, good to choice $8.25@8.65, common to fair $6@8; cows, extra $6.85@7.25, good to choice $6@6.75, common to fair $4.75@5.85, canners $4@4.50, stockers and feeders $5.50@7.75.

Bulls—Bologna $6.25@7.25, fat bulls $7.25@7.50.

Calves—Extra $11@11.25, fair to good $9@11, common and large $5@10.75.

Hogs—Selected heavy shippers $10.05@10.10, good to choice packers and butchers $10.05@10.10, mixed packers $9.85@10.05, stags $6@7, common to choice heavy fat sows $7.75@9.40, select medium (160 to 180 lbs) $9.25@9.90, light shippers $9.35@9.50, pigs (110 lbs and less) $6@8.40.

Sheep—Extra $8@8.25, good to choice $7.25@8, common to fair $4.50@6, sheared sheep $6@7.50.

Lambs—Extra $10.25, good to choice $9.50@10.15, common to fair $6@9.25, spring lambs $10.50@13.

Don't Prune With an Ax.

One would not think of amputating an arm with an ax, and he should think the same way of the limb of a tree, for trees are in many respects like animals. Animal wounds must heal or harm will result, and it is the same with tree wounds. If you go into the orchard and hack limbs off with an ax you are probably doing more harm than good. Many of these wounds will be jagged, and long stubs will be left. Many of these will never heal over, and as a result decay will set in, and a healthy tree may in a few years be ruined. Pruning is a necessary orchard practice, but slashing with an ax is not pruning.—C. W. Rapp, Oklahoma Station.

TIMELY POULTRY HINTS.

If you intend to use hens for hatching set them in a dry place where the ventilation is good.

If you do not intend to use hens for hatching break them up at once and get them to laying again.

A good way to break up a broody hen is to put her in a light, dry coop with a wire or slat bottom that you can hang up. This permits free circulation of air, and as it blows up through the fluff it reduces the fever which is in their blood at this time.

This is the time to get out your winter layers.

Hens suffer from a damp henhouse, so it is well to keep the floor covered with litter.

Keep a flock of hens, a good cow or two, prepare for a good garden this year, and you won't have to complain of the high cost of living.—North Dakota Agricultural College.

A Financial Difficulty.

"Seaweed has been found to be prolific in fuel oil."

"But if they organize a company to exploit it, won't they first have to squeeze the water out of the stock?"—Baltimore American.

FARMERS AND HIGHWAYS.

Farming is a business, and, like any other business man, the farmer must consider the important problem of transportation. Unfortunately farmers are forced to move their crops when the roads will permit.

Good roads not only enable the farmer to take advantage of favorable conditions in disposing of his crops, but reduce the cost of hauling at least two-thirds, according to competent authorities.

They also have a direct bearing upon the cost of living, which is a most important consideration for the consumer. We frequently hear of the low cost of living in Europe in normal conditions, and when we consider that our average cost of hauling per ton mile is 25 cents, compared with 8 cents to 12 cents in Europe, we realize that we are paying a heavy tribute to bad roads. A reduction in the cost of transportation means lowering the market price.

Also the supply of farm products, which generally determines their market price, depends upon the condition of the country roads. A shortage sends the prices soaring, and the consumer must dig deep into his pocket to make the purchase.—S. M. Williams.

$100.000.000 FOR ROADS.

Interstate Highways Would Aid In Mobilizing Troops, Advocates Say.

A bill providing federal aid for main line interstate highways, which will have the support of national good roads organizations, has been prepared for congress to pass upon. A strong argument to be used in favor of the measure will be in connection with preparedness. It will be said that over the proposed interstate highways, by means of automobiles and motor trucks, troops could be mobilized rapidly. Construction of three transcontinental highways east and west and two north and south will be provided for if the bill becomes a law.

Several new features have been incorporated in this bill to avoid some of the objections and problems of the past. One of these is designed to reduce to a minimum logrolling as to the location of the through highways. This provision is that the fund appropriated shall be expended upon whatever main roads and post roads the secretary of agriculture and the highway department of the state in question shall determine. Thus the main course of the transcontinental lines would be in the hands of the secretary of agriculture. The department of agriculture has been making experiments in road building, especially as regards materials in different sections of the country, for several years.

Another feature in the bill of cooperation between the federal government and the states is that a state shall appropriate a sum equal in amount to that allotted to it by the national government. Furthermore, the money appropriated by congress shall be distributed among the several states on the basis of population, route and mileage.

The amount to be asked of congress for this purpose will be $50,000,000, according to information received in New York city. The plan is for the states to equal this amount so that a fund of $100,000,000 would be provided for transcontinental road construction. Twenty per cent of the fund provided is to be reserved for maintenance.

With the government assisting in the main line routes it is said that the states will have more money to build lateral or feeder lines, so that the proposed highways would be the backbone of a system of roads that would greatly reduce cost of transportation from the farm to the nearby market and thus be the introduction of a new national economy.

Millions For State Roads.

A total of $54,829,000 was expended by the states for road building in 1915, according to a circular issued by the secretary of agriculture at Washington. In the list of states New York leads with $15,000,000. California was second with $7,000,000. Next came Pennsylvania with $5,000,000. Maryland stands fourth, $4,572,000. Other states that spent over $2,000,000 are Ohio, $3,300,000; Washington, $3,107,000; Massachusetts, $2,437,000; Illinois, $2,100,000.

Improved roads to the extent of 35,477 miles had been completed under state supervision at the outset of 1915. It was about twenty years ago that state governments began to make appropriations for road improvements; up to Jan. 1, 1915, the grand total set aside by the states for road improvements amounted to $211,859,000. Showing the way this policy of the states has grown in recent times, the circular states that $104,000,000 of the total was appropriated by the states since the beginning of 1914.

Convicts on Illinois Highway.

Fifty convicts from the southern Illinois penitentiary are building a highway from Ava, Jackson county, to the Mississippi river. No guards were sent with the convicts, and the officer in charge is unarmed. Each prisoner is allowed one day off his sentence for every two days worked on the roads. Citizens of Ava and vicinity contributed $2,500 toward the maintenance of the convict camp.

HOME DEPARTMENT

Conducted by Miss Jessie S. Moore, Director of Home Science

COLD DESSERTS FOR HOT DAYS

As the days grow warmer we lose our appetites for many foods which we have eaten thru the colder seasons. A change of diet is beneficial. We should eat less of meat, oatmeal and other heating foods and more of the fresh vegetables which will soon be plentiful. Cold desserts are also appetizing.

The following are some tried recipes for frozen desserts.

Lemon Milk Sherbet

Grated rind of 1 lemon
Juice of 3 lemons
1 pt. sugar
1 qt. milk
A spk. salt

(Makes a two quart freezer full)

Orange sherbet may be from same recipe made by using 2 oranges and 2 lemons for flavor.

Strawberry sherbet by using juice one box strawberries.

Care must be exercised in the mixing of the milk sherbets made with acid fruit juices. Add the juice to the sugar and allow it to stand until it is partially dissolved. Pack freezer can nearly to top to chill it. Then mix the fruit juice and sugar with milk and freeze at once. If allowed to stand the curds will separate so much as to spoil the sherbet

Orange Ice. (with water)

4 cups water
2 cups sugar
½ cup lemon juice
Grated rind of two oranges
Juice of four oranges

Make sirup as for lemon ice; add fruit juice, cool, strain and freeze.

Ice Cream

To one quart of thin cream add three-fourths cup of sugar and one-half teaspoon of vanilla or any other flavor desired. Freeze.

Neapolitan Cream

1 qt. milk
6 egg yolks
1 c. sugar
1 t. salt

Make boiled custard taking care not to curdle. In order to do this scald milk in double boiler. Mix with salt and sugar. Add hot milk gradually. Turn back into the double boiler and cook stirring constantly until it coats the spoon. Then pour out into cool dish quickly. When this has cooled add 1 pt. cream and freeze.

Always scald the ice cream can before using it to kill any harmful bacteria which might be present. Don't fill more than three-fourths full as ices expand in freezing.

Crush ice in an old sack. Fine crushed ice will freeze the cream faster than coarse pieces. Use three times as much ice as salt. Put plug inside of freezer while freezing. Turn crank slowly at first then more rapidly as cream freezes. Care must be taken that water does not come over top of can.

Ices are better to stand awhile after being frozen. When the mixture is frozen take out dasher and pack down cream. Then draw off water from freezer, pack ice and salt solidly around freezer being sure that the ice is crowded around the bottom of can. Leave plug out of freezer and pack ice over top of can.

Let me say to those who have no freezers that fairly good ice cream can be made without one. I have never had good luck with sherbets or water ices. For ice cream beat your cream before adding it to other ingredients and put all into a bright tin bucket with a good lid. Pack in ice and salt in a wooden tub. Every fifteen minutes open and stir thoroly getting all the part that has frozen on bottom and sides well mixed with the thinner part in the center. The cream will not be as fluffy as that made in a regular freezer and it is more trouble to make but I am sure if you try it you will agree that its much better than none.

PRACTICE HOUSES

Home Economics Are Now Taught by Object Lessons.

OUR GOVERNMENT SPEAKS.

Just as the Art of Housekeeping Calls For Acquaintanceship With Real Brooms and Stoves, So Does the Larger Field Require Real Cottages.

Housekeeping cottages, in which the students obtain actual practice in household work, are a prominent feature of current progress in home economics, according to a report issued by the department of the interior through the bureau of education.

"The practice house is as distinctly a legitimate part of the equipment for teaching home economics as the sewing machine, ironing board or individual desk with its cooking utensils," declares the report.

"Home economics departments in schools and colleges are not all so fortunate as to have residences in which to instruct in home management and in housewifery. There has been some hesitancy among school officers because of the initial expense of a practice house. But as it is recognized that these houses are quite as necessary as are good laboratories and that the maintenance costs are not excessive more departments are being thus supplied. These houses offer opportunities for experimental studies in household administration, make practice in home furnishing possible and afford excellent places for studies in nutrition."

The report says that home economics are now a recognized course of study in all agricultural colleges to which women are admitted. Thirty-one state universities offer regular courses in home economics, and most of the private and denominational colleges and universities now offer similar instruction. So important has the subject become in state public school systems during the past two or three years that now practically every state normal school has a course in home economics for prospective schoolteachers.

Summer schools are coming to play an especially important part in home economics teaching. The bureau of education received announcements from 192 schools that were offering courses during the summer of 1914; in 1915 the number reporting had increased to 230, and a still further increase is already assured for 1916.

Twenty-three states report an outline of lessons in home economics for state wide use. A state manual of study for the public elementary schools of Alabama contains an outline for lessons in cooking and suggestions for the teaching of sewing in the grades, with lists of equipment and references for domestic science teachers in the grades. In California each county or city board of education prescribes its own course of study in home economics. An outline for a course of lessons in home economics has been prepared for the common schools of Illinois. This is made use of particularly in the rural schools. The domestic science section of the high school conference of Illinois has recently completed a comprehensive outline for practical lessons in the fifth, sixth, seventh and eighth grades.

FOR DRESSY OCCASIONS.

Net and Ribbon Still Hold Their Own on Afternoon Frocks.

This pretty frock is a combination of sage green net over satin in the same tone. The banding on the skirt, as well as the flowing girdle, is of wide velvet

GOING CALLING.

ribbon. The bodice is cut with bishop sleeves and surplice waist with a rose in the corsage. The white fox scarf may be discarded when warm days come.

Tar Stains.

To remove tar stains rub the spot first with lard and then with soap. Leave for an hour and then wash in hot water softened with ammonia. Should slight traces remain rub with turpentine.

Ancient Delphi.

Ancient Delphi was a small town in Greece on the southern slope of Mount Parnassus, where poets were supposed to draw their inspiration. The ancient town got its name from its founder, Delphus, son of Apollo, and there was a temple of Apollo there, where prophecies were made; hence the phrase Delphian or Delphine oracles. A fountain called the Castalian spring, supposed to be frequented and patronized by poets, was situated on the mountain side near Delphi. A portion of the site of the ancient town is now occupied by a village called Kastri, and interesting excavations have been made there in recent years.

Cats' Eyes.

As showing how widely the permanently blue eyes of cats differ from other eyes it is noted that immediately the eyes of white cats that are to have permanently blue eyes open they shine bright red in the dark, and neither the ephemeral kitten blue nor any other colored eye does this.—San Francisco Chronicle.

HOW TO MANAGE YOUR COLD WEATHER VENTILATION.

It is easy enough to ventilate the house in warm weather. One simply leaves most of the windows open most of the time. To be sure, we are often assured by scientists that this method does not ventilate. We are even told that the air out of doors is not always ventilated. But we manage to thrive in the closeness of the outdoor atmosphere, and we manage to feel comfortable if we get a good deal of this atmosphere into our houses.

However, unless our houses are equipped with a system of artificial ventilating, open windows form the best means of ventilating. It is, of course, a matter settled nowadays that we sleep with open windows, one open at the top, one at the bottom. In this way we keep our bedrooms well aired. And in the house where the bedrooms serve only for sleeping rooms the windows should be left open as much as possible during the day. Children especially should sleep in rooms that have been well ventilated throughout the day.

In the case of stormy weather too much of the outdoors sometimes comes into the windows, even of our bedrooms. There are various methods of keeping this weather out. In case of too strong winds cheesecloth screens answer the purpose. For these just cover a regular screen frame with a couple of thicknesses of cheesecloth. Then put it in place.

Weatherboards to put in partly open windows are also admirable. These make ventilation possible without creating a very big draft.

DENTAL HYGIENE.

How to Have Well Kept Teeth That Last a Lifetime.

We cannot all have small, even, white teeth, but we can all have perfectly kept teeth. A careful mother begins the attention to her children's teeth as soon as they push through the gums. She cleans them with a bit of absorbent cotton on the end of her scrubbed finger, and as the child grows older she brushes them. Nowadays all the teeth of all school children are inspected, which will result in better teeth, with no false teeth before the age of fifty, except under unusual conditions.

The teeth should be brushed after every meal and cleaned with a paste at least every other day. Do not use any of the powders that are gritty, however cleansing they may be. Teeth cannot be treated the same as a bathtub. Always after eating anything every particle of food should be removed from between the teeth with dental floss. This is really the only safe means of dislodging foodstuff. Brush up and down on the surface of the teeth, not across. Gritty powders in time destroy the enamel, and brushing across the grain has the same effect. Brush the inner side of the teeth as thoroughly as the outer, being careful to cleanse the mouth well. Now, the average woman is apt to feel she has done her duty when the teeth are brushed. This is not true. A mouth wash is just as necessary. Rinse the mouth daily with any good alkali wash.

How to Cover Buttons to Match Your Frock.

Do you cover your own buttons? It means a saving and gives variety to a costume. It can be done by crochet stitches or by needlework as well as by bits of fancy silk, too insignificant for any other use. Objections have been heard on the score that the result is not as satisfactory as professional work, but the answer to that is the injunction to do all the work neatly. Slipshod methods are to be condemned everywhere, although, to be sure, time is wasted in the inside finish of frocks. Even expensive dressmakers have taken a hint from Paris and concentrated on externals.

How to Develop the Art of Saving Gas When You Cook.

To get the greatest amount of heat from a gas range and not waste gas the gas should not be turned any higher than will give a perfect blue flame. When the flame becomes a yellowish red the gas is being wasted and giving a heat that smokes and smudges cooking utensils and shortens their period of usefulness about one-half. In cooking have the flame about one-half inch of clear blue and after the article being cooked reaches the boiling point reduce the flame to only such a height as will keep it boiling. This also applies to oven jets.

How to Make Beauty Bags For Your Daily Bath.

Make the bags of cheesecloth about four inches square or a little larger and fill them loosely with the following mixture: Oatmeal (not rolled oats), a pound; powdered orris root, a quarter of a pound; almond meal, a quarter of a pound; powdered castile soap, four ounces. A few drops of oil of verbena may be added if liked.

How to Wash Pongee So That It Looks Like New.

Wash a pongee garment or material in a warm suds of white soap and hang it out until bone dry. Under no consideration ever sprinkle it. Iron it on the wrong side, and you will find it retains its luster and looks like new